

Amendments to the Claims

1 Claim 1 (original): A computer program product for improving scheduling of tasks, the
2 computer program product embodied on one or more computer readable media and comprising:

3 computer-readable program code means for computing whether execution of a plurality
4 of tasks is feasible, wherein each of the tasks has an associated cost and an associated deadline;

5 computer-readable program code means for adding an additional amount of time to the
6 associated cost for each of the tasks, thereby yielding a revised cost for each task, when the
7 execution is computed to be feasible;

8 computer-readable program code means for iteratively repeating operation of the
9 computer-readable program code means for computing and the computer-readable program code
10 means for adding, until the execution is computed to be no longer feasible; and

11 computer-readable program code means for using the revised cost for each task as an
12 upper limit on execution time for the task, after operation of the computer-readable program code
13 means for iteratively repeating.

1 Claim 2 (original): The computer program product according to Claim 1, wherein the additional
2 amount of time is a fixed percentage of the associated cost for the task.

1 Claim 3 (original): The computer program product according to Claim 1, wherein the additional
2 amount of time is zero for a subset of the tasks, and for all other tasks is a fixed percentage of the
3 associated cost for the task.

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1 Claim 4 (original): The computer program product according to Claim 1, wherein on a first
2 iteration of the computer-readable program code means for adding, the additional amount of time
3 is a fixed percentage of the associated cost for the task and wherein on other iterations, the
4 additional amount of time is a fixed percentage of the revised cost for the task.

1 Claim 5 (original): The computer program product according to Claim 1, wherein on a first
2 iteration of the computer-readable program code means for adding, the additional amount of time
3 is zero for a subset of the tasks, and for all other tasks is a fixed percentage of the associated cost
4 for the task, and wherein on other iterations, the additional amount of time is a fixed percentage
5 of the revised cost for the task.

1 Claim 6 (original): The computer program product according to Claim 1, wherein the computer-
2 readable program code means for using further comprises:

3 computer-readable program code means for determining, at run-time, whether a particular
4 one of the tasks has exceeded its associated cost, and if so, computer-readable program code
5 means for allowing the particular task to run until reaching a minimum of (1) an amount of time
6 remaining until the task's associated deadline or (2) the upper limit on execution time for the
7 task.

1 Claim 7 (original): A system for improving scheduling of tasks, comprising:

2 means for computing whether execution of a plurality of tasks is feasible, wherein each of
3 the tasks has an associated cost and an associated deadline;

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4 means for adding an additional amount of time to the associated cost for each of the tasks,
5 thereby yielding a revised cost for each task, when the execution is computed to be feasible; and
6 means for iteratively repeating operation of the means for computing and the means for
7 adding, until the execution is computed to be no longer feasible.

1 Claim 8 (original): The system according to Claim 7, further comprising means for using the
2 revised cost for each task as an upper limit on execution time for the task, after operation of the
3 means for iteratively repeating.

1 Claim 9 (original): The system according to Claim 7, wherein the additional amount of time is a
2 fixed percentage of the associated cost for the task.

1 Claim 10 (original): The system according to Claim 7, wherein the additional amount of time is
2 zero for a subset of the tasks, and for all other tasks is a fixed percentage of the associated cost
3 for the task.

1 Claim 11 (original): The system according to Claim 7, wherein on a first iteration of the means
2 for adding, the additional amount of time is a fixed percentage of the associated cost for the task
3 and wherein on other iterations, the additional amount of time is a fixed percentage of the revised
4 cost for the task.

1 Claim 12 (original): The system according to Claim 7, wherein on a first iteration of the means

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2 for adding, the additional amount of time is zero for a subset of the tasks, and for all other tasks
3 is a fixed percentage of the associated cost for the task, and wherein on other iterations, the
4 additional amount of time is a fixed percentage of the revised cost for the task.

1 Claim 13 (currently amended): The system according to Claim [[7]] 8, wherein the means for
2 using further comprises:

3 means for determining, at run-time, whether a particular one of the tasks has exceeded its
4 associated cost, and if so, means for allowing the particular task to run until reaching a minimum
5 of (1) an amount of time remaining until the task's associated deadline or (2) the upper limit on
6 execution time for the task.

1 Claim 14 (original): A method for improving scheduling of tasks, comprising steps of:

2 computing whether execution of a plurality of tasks is feasible, wherein each of the tasks
3 has an associated cost and an associated deadline;

4 adding an additional amount of time to the associated cost for each of the tasks, thereby
5 yielding a revised cost for each task, when the execution is computed to be feasible; and

6 iteratively repeating operation of the computing step and the adding step, until the
7 execution is computed to be no longer feasible.

1 Claim 15 (original): The method according to Claim 14, further comprising the step of using the
2 revised cost for each task as an upper limit on execution time for the task, after operation of the
3 step of iteratively repeating.

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1 Claim 16 (original): The method according to Claim 14, wherein the additional amount of time
2 is a fixed percentage of the associated cost for the task.

1 Claim 17 (original): The method according to Claim 14, wherein the additional amount of time
2 is zero for a subset of the tasks, and for all other tasks is a fixed percentage of the associated cost
3 for the task.

1 Claim 18 (original): The method according to Claim 14, wherein on a first iteration of the
2 adding step, the additional amount of time is a fixed percentage of the associated cost for the task
3 and wherein on other iterations, the additional amount of time is a fixed percentage of the revised
4 cost for the task.

1 Claim 19 (original): The method according to Claim 14, wherein on a first iteration of the
2 adding step, the additional amount of time is zero for a subset of the tasks, and for all other tasks
3 is a fixed percentage of the associated cost for the task, and wherein on other iterations, the
4 additional amount of time is a fixed percentage of the revised cost for the task.

1 Claim 20 (currently amended): The method according to Claim ~~[[14]]~~ 15, wherein the using step
2 further comprises the steps of:
3 determining, at run-time, whether a particular one of the tasks has exceeded its associated
4 cost, and if so, allowing the particular task to run until reaching a minimum of (1) an amount of

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- 5 time remaining until the task's associated deadline or (2) the upper limit on execution time for
6 the task.

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